



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/011,027	11/02/2001	Laurent Scallic	AC-001-US.	7510
31955	7590	11/08/2006	EXAMINER	
ROSENFELD LAW CORPORATION 1638 FILBERT STREET SAN FRANCISCO, CA 94123			JONES, SCOTT E	
			ART UNIT	PAPER NUMBER
			3714	
DATE MAILED: 11/08/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/011,027

Applicant(s)

SCALLIE ET AL.

Examiner

Scott E. Jones

Art Unit

3714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 and 7-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 7-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>3/26/06</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.
2. Applicant's arguments, see Applicant's Appeal Brief, filed August 5, 2006, with respect to the rejection(s) of claim(s) 1-5 and 7-20 under 35 U.S.C. § 102(b) as being anticipated by I-O Display Systems H3D Terminator 3D Gaming Glasses have been fully considered and are persuasive. Although the Examiner believes the rejection may be maintained to at least claim 1 and 15, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Bar-Nahum (U.S. 6,496,183).

Claim Rejections - 35 USC § 102

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-5, 7, 11, and 15-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Bar-Nahum (U.S. 6,496,183).

Bar-Nahum discloses a method and apparatus for generating stereoscopic 3D graphics using a stereoscopic filter. The stereoscopic filter is a software module integrated in the operating system of a computer system and is configured to intercept function calls to a 3D hardware acceleration driver. The filter generates left eye and right eye viewpoint data for a graphics object and outputs the data to a display driver for storage in a frame buffer. The stereoscopic display is designed to create a realistic stereoscopic effect in the viewer's mind, given that the two frames are correctly displaced to match the distance between the eyes. The stereoscopic filter can be used with any stereoscopic display device since the RGB video signal

output from the DAC is generated to meet industry standards. The stereoscopic filter is not limited to use with any particular operating system. Bar-Nahum's stereoscopic filter may be used to render images in a video game. Bar-Nahum additionally discloses a method for operating three-dimensional application software to generate a 3D stereoscopic vision display, wherein the 3D application software is of the type that provides a 3D output signal to a display driver for a 3D graphics rendering device to generate a display output appearing to be three-dimensional for display on a two-dimensional (2D) screen display, further comprising:

Regarding Claim 1:

- running the application software in its normal mode to generate the 3D output signal which is normally sent from the application software to a display driver for a 3D graphics rendering device for generating a 3D display output on a 2D screen display (Figure 1, Column 4, lines 1-9, 19-29);
- intercepting the 3D output signal from the application software and redirecting said 3D output signal to a pseudo driver (stereoscopic filter (26)), wherein said pseudo driver generates from said output signal a left image view signal and a right image view signal that is stereoscopically offset from the left image view signal (Figures 2-5c, Column 3, lines 16-24, Column 4, lines 1-34, Column 6, lines 8-34, and Column 7, lines 27-67); and
- said pseudo driver (stereoscopic filter (26)) providing said left image view signal to a first 3D graphics rendering device and said right image view signal to a second 3D graphics rendering device, and using said first and second 3D graphics rendering device for separately rendering in tandem left and right image views for display in a

Art Unit: 3714

3D stereoscopic vision display device (Figures 2-5c, Column 3, lines 16-24, Column 4, lines 1-34, Column 6, lines 8-34, and Column 7, lines 27-67).

Regarding Claim 2:

- wherein the 3D stereoscopic vision display device (34) is selected from the group consisting of head-mounted "stereo vision" goggles, head-mounted 3D display device, and a stereo vision monitor (Figures 2-5c, Column 3, lines 16-24, Column 4, lines 1-34, Column 6, lines 8-34, Column 7, lines 27-67, and Column 8, lines 1-4).

Regarding Claim 3:

- wherein the 3D application software is a 3D video game software which provides 3D game data output (Column 1, lines 23-31 and Column 9, lines 15-27).

Regarding Claim 4:

- wherein the intercepting and redirecting of the 3D game data is obtained by providing a wrapper for the game software's native API display driver and replacing with stereoscopic pseudo driver display function calls linked under the same name as the game software's native API for a 2D display (Figure 2, Column 3, lines 35-67, and Column 4, lines 1-11).

Regarding Claim 5:

- wherein the wrapper (integral to stereoscopic filter (26)) supports a selected one of the following group of native API formats: Glide; OpenGL; and DirectX (Column 8, lines 41-50).

Regarding Claim 7:

- wherein the pseudo driver generates a 3D stereoscopic vision display using one physical graphics card with dual graphics generator card heads for separately rendering right and left image view for the 3D stereoscopic vision display (Figures 2-5c, and Column 8, lines 12-14).

Regarding Claim 11:

- wherein the dual rendering system is kept running while switching between different game software. Bar-Nahum inherently has contains this feature as the structure is provided. Given Bar-Nahum's apparatus is coupled to a game machine and a CD-Rom is retrieved from the drive, a game is shutdown and another selected on a PC, or a player selects another online game over the Internet, Bar-Hahum's dual rendering system must continue running (which could simply mean the dual rendering system remains powered up) when switching between games.

Regarding Claim 15:

- running the application software on a computer in its normal mode to generate a 3D output signal intended for a 2D screen display (Figure 1, Column 4, lines 1-9, 19-29);
- providing a pseudo 3D display driver that links to the native API display driver by intercepting image display function calls to the native API display driver from the application software and redirecting them through the pseudo 3D display driver in order to generate multiple, separate image views and provide the image views to respective ones of a corresponding multiple 3D graphics rendering devices for a multi-view 3D display (Figures 2-5c, Column 3, lines 16-24, Column 4, lines 1-34, Column 6, lines 8-34, and Column 7, lines 27-67).

Regarding Claim 16:

- wherein the 3D multi-view display is selected from the group consisting of head-mounted "stereo vision" goggles, head-mounted 3D display device, and a stereo vision monitor (Figures 2-5c, Column 3, lines 16-24, Column 4, lines 1-34, Column 6, lines 8-34, Column 7, lines 27-67, and Column 8, lines 1-4).

Regarding Claim 17:

- wherein the 3D application software is a 3D video game software which provides 3D game data output (Column 1, lines 23-31 and Column 9, lines 15-27).

Regarding Claim 18:

- wherein the pseudo 3D display driver supports a selected one of the following group of native API formats: Glide; OpenGL; and DirectX (Column 8, lines 41-50).

Regarding Claim 19:

- wherein the pseudo 3D display driver generates right and left eye image views, and provides them to respective right and left graphics rendering devices in parallel for the right and left eye views into right and left image display outputs, respectively, which are used for the 3D stereoscopic vision display (Figures 2-5c, Column 3, lines 16-24, Column 4, lines 1-34, Column 6, lines 8-34, and Column 7, lines 27-67).

Regarding Claim 20:

- further including separate graphics generator cards for rendering the right and left image views in parallel for the 3D stereoscopic vision display (Figures 2-5c, and Column 8, lines 12-14).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 8-10 and 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bar-Nahum (U.S. 6,496,183).

Bar-Nahum discloses that as discussed above with regards to claims 1-5, 7, 11, and 15-20. However, Bar-Nahum seems to lack explicitly disclosing:

Regarding Claim 8:

- wherein the intercepted 3D game data is stored in a 3D data recorder for later play back.

Regarding Claim 9:

- wherein the recorded 3D game data are transmitted or downloaded through an online interface to a remote user.

Regarding Claim 10:

- wherein the intercepted 3D game data is combined with other 3D content using a mixer and a dual rendering system.

Regarding Claim 12:

- wherein another pseudo driver operates on the 3D game data in tandem with the pseudo 3D display driver.

Regarding Claim 13:

Art Unit: 3714

- wherein the other pseudo driver is a stereo sound or a directional force feedback driver.

Regarding Claim 14:

- wherein the video game software is run with one or more tracking devices for input from the player.

However, each of the limitations in claims 8-10 and 12-14 were notoriously well known to one having ordinary skill in the art at the time of Applicant's invention. Each of the claims is directed to features that make a player's gaming experience better than that of a standard game machine setup.

Conclusion


6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Taki et al. '551 discloses an image display device, image display system, and program cartridge used therewith.
- Kikuchi '939 discloses an image observation apparatus having a head mounted image display unit.
- Yoshida '328 discloses a method and apparatus of generating three dimensional image data having one file structure and recording the image data on a recording medium and recording medium for storing the three dimensional image data having one file structure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott E. Jones whose telephone number is (571) 272-4438. The examiner can normally be reached on Monday - Friday, 8:30 A.M. - 5:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bob Olszewski can be reached on (571) 272-6788. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Scott E. Jones
Primary Examiner
Art Unit 3714

SEJ